

REMARKS

Claims 7-15 are all the claims pending in the application.

Claims 7, 11, and 12 have been amended. Support for the amendments can be found in the specification at, for example, page 9, lines 7-10; page 11, line 27, to page 12, line 2; and page 15, lines 29-30.

Entry of the amendments is respectfully requested.

Reconsideration and allowance of all claims are respectfully requested in view of the following remarks.

Continued rejection of Claims 7-9, 11-13, and 15 under 35 U.S.C. § 103(a)

The Examiner continues to reject Claims 7-9, 11-13, and 15 under 35 U.S.C. § 103(a). Independent Claims 7, 11, and 12 have been amended to recite that, among other things, second stripping unit (9) is external to the recovery section (3, 4, 7, 8). Further, Applicants respectfully submit that Claims 7, 11, and 12, as amended, recite structural features that patentably distinguish the claimed invention from the cited art.

Continued rejection of Claims 10 and 14 under 35 U.S.C. § 103(a)

The Examiner continues to reject Claims 10 and 14 under 35 U.S.C. § 103(a).

Applicants respectfully continue to traverse the Examiner's continued rejection for the following reasons.

Applicants submit that feeding means 62 of Finneran et al is unambiguously connected to the condensing section of unit 22. In this regard, the Examiner's reasoning appears to have overlooked the fact that the ammonia-carbon dioxide condensate is recycled to the secondary heating and carbamate condensing zone 22 by valved line 62 "for admixture with ammonium carbamate separated therein" (column 7, lines 23-24). Since the separated ammonium carbamate

can only be present in the carbamate condensing zone, it can't be that ammonia-carbon dioxide condensate is also recycled to the heating section.

This is confirmed at column 7, lines 34-41, wherein the liquid ammonia and carbon dioxide recycled to the system in line 62 may be passed to the primary heating and carbamate condensing zone 14 "for admixture with the ammonium carbamate condensated therein". Again, the condensed ammonium carbamate can only be in the carbamate condensing zone and, thus, the admixture with the above liquid recycle can only take place in such zone.


Thus, Applicants respectfully submit that Claims 10 and 14 are not rendered obvious by the cited references.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

7. (Amended) Plant for urea production comprising:

- a urea synthesis reactor (1) ;
- a first stripping unit (2) for subjecting a reaction mixture leaving said reactor (1) to a treatment of partial decomposition of the carbamate and partial separation of the free ammonia in aqueous solution present in said mixture;
- means (6) for condensing at least partially the vapors leaving said first stripping unit (2) and for recycling (24) a first portion of carbamate in aqueous solution to said reactor (1) ;
- a recovery section (3, 4, 7, 8) of a flow comprising urea and residual carbamate in aqueous solution leaving said first stripping unit (2) for separating the urea produced in the reactor (1) from a second portion of carbamate in aqueous solution;

characterized in that it comprises:

- a second stripping unit (9) external to said recovery section (3, 4, 7, 8) for subjecting at least part of said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to a treatment of partial decomposition;
- means (26) for feeding said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to said second stripping unit (9);
- means for condensing at least partially the vapors leaving said second stripping unit (9) and of recycling a third portion of carbamate in aqueous solution to said reactor (1).

11. (Amended) Method for modernizing a plant for urea production of the type comprising:

- a urea synthesis reactor (1) ;
- a first stripping unit (2) for subjecting a reaction mixture leaving said reactor (1) to a treatment of partial decomposition of the carbamate and partial separation of the free ammonia in aqueous solution present in said mixture;
- means (6) for condensing at least partially the vapors leaving said first stripping unit (2) and of recycling a first portion of carbamate in aqueous solution to said reactor (1) ;
- a recovery section (3, 4, 7, 8) of a flow comprising urea and residual carbamate in aqueous solution leaving said first stripping unit (2) for separating the urea produced in the reactor (1) from a second portion of carbamate in aqueous solution;

characterized in that it comprises the steps of:

- providing a second stripping unit (9) external to said recovery section (3, 4, 7, 8) for subjecting at least part of said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to a treatment of partial decomposition;
- providing means (26) for feeding said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to said second stripping unit (9);
- providing means for condensing at least partially the vapors leaving said second stripping unit (9) and of recycling a third portion of carbamate in aqueous solution to said reactor (1).

12. (Amended) Method for modernizing a plant for urea production of the type comprising:

- a urea synthesis reactor (1) ;
- a first stripping unit (2) for subjecting a reaction mixture leaving said reactor (1) to a treatment of partial decomposition of the carbamate and partial separation of the free ammonia in aqueous solution present in said mixture;
- means (6) for condensing at least partially the vapors leaving said first stripping unit (2) and of recycling a first portion of carbamate in aqueous solution to said reactor (1) ;
- a recovery section (3, 4, 7, 8) of a flow comprising urea and residual carbamate in aqueous solution leaving said first stripping unit (2) for separating the urea produced in the reactor (1) from a second portion of carbamate in aqueous solution;

characterized in that it comprises the steps of:

- providing a second stripping unit (9) external to said recovery section (3, 4, 7, 8) for subjecting at least part of said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to a treatment of partial decomposition;
- providing means (26) for feeding said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to said second stripping unit (9);
- providing means for feeding (32) the vapors leaving said second stripping unit (9) to said means for condensing (6) the vapors leaving said first stripping unit (2).